

# Item Unique Identification (IUID) Using the Mark

IUID Center  
Representative  
NSWC Corona, IUID  
Center  
28 JUNE 2012 <sup>1</sup>

# Housekeeping

- Please mute your telephone
- Please use the chat box for questions which are critical to the understanding of the presentation
- Please submit any question not requiring immediate attention to CRNA-IUID\_gateway@navy.mil
- Questions will be answered as time permits

# The Very Basics



***There are 2 fundamental,  
critical, abstract  
requirements:***

1. Unique

2. Permanent

***Almost all your problems will go away and almost  
all your benefits will grow if these two things are***<sup>3</sup>

# Overview

abstract

- 1) Scanning is better than typing
- 2) Database-to-Database data mining
- 3) Maintaining Relationships with Barcodes

concrete

- 4) Anti-counterfeiting
- 5) Inventory
- 6) Bending IUID to your system
- 7) Serialized Item Management

Scanning is better than  
typing

# The Underlying Thought



- Good Decisions are based on getting good information to the right people in time.
  - Good information is founded on good analysis of high quality data.
  - Getting information to the right people in time requires data to be captured, converted to knowledge and delivered  
**“Data” → Information → Decisions**

# Data is Not Cheap

**1) Data Capture**

**2) Data Storage**

- media
- safeguarding
- retrieval

**3) Data Analysis**

# Data is Not Cheap

## 1) Data Capture

Machine readable marks

Data accuracy leads to

- Less data scrubbing
- More fidelity in analysis

## 3) Data Analysis

This is not the problem any longer

## 2) Data Storage

- media
- safeguarding
- retrieval

**UID Makes Data Cheaper**

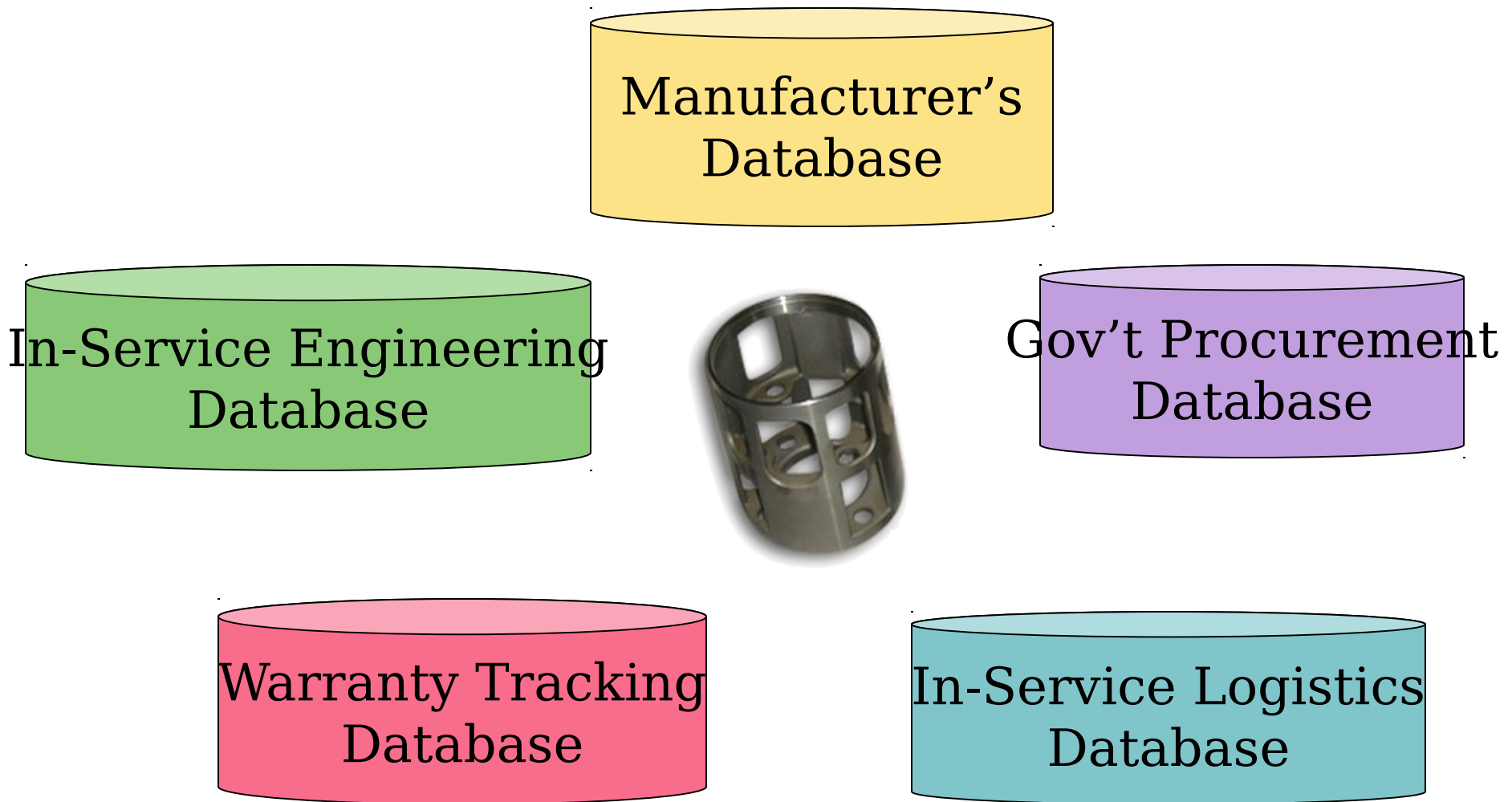


# System-System Communication

---

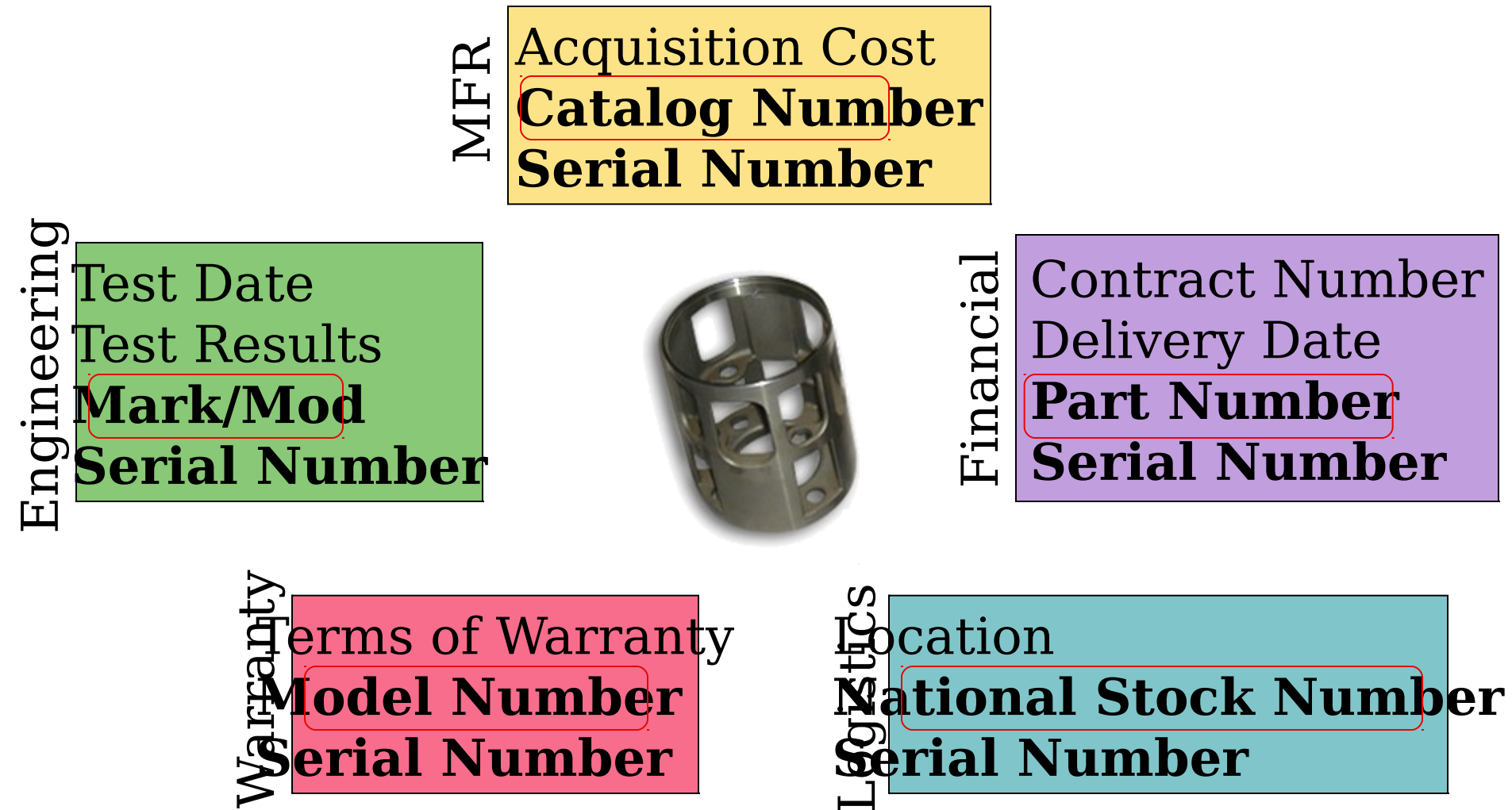
Database-to-Database  
data aggregation

# System-System Communication



**Items often exist within a variety of specialized**

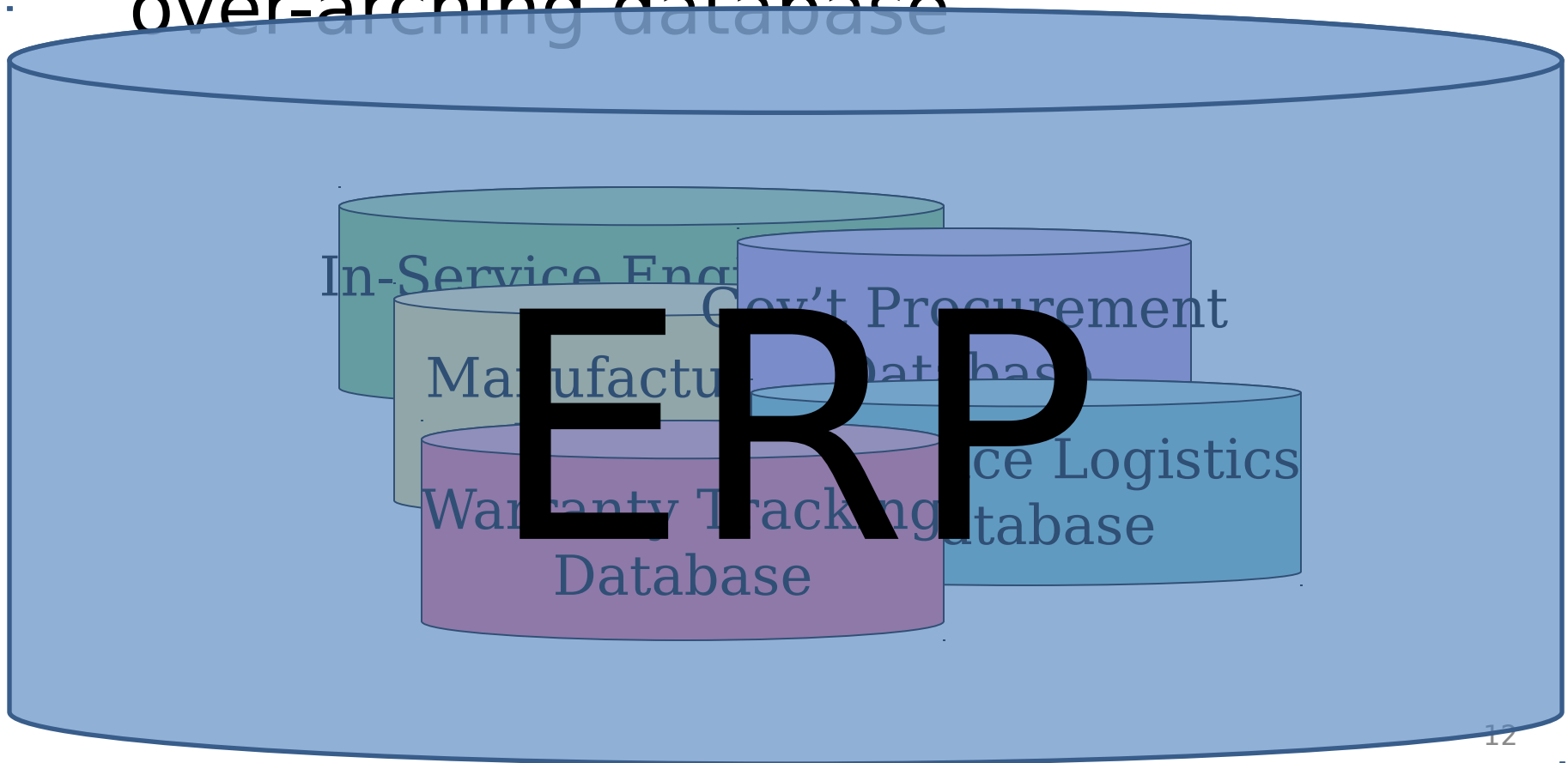
# System-System Communication



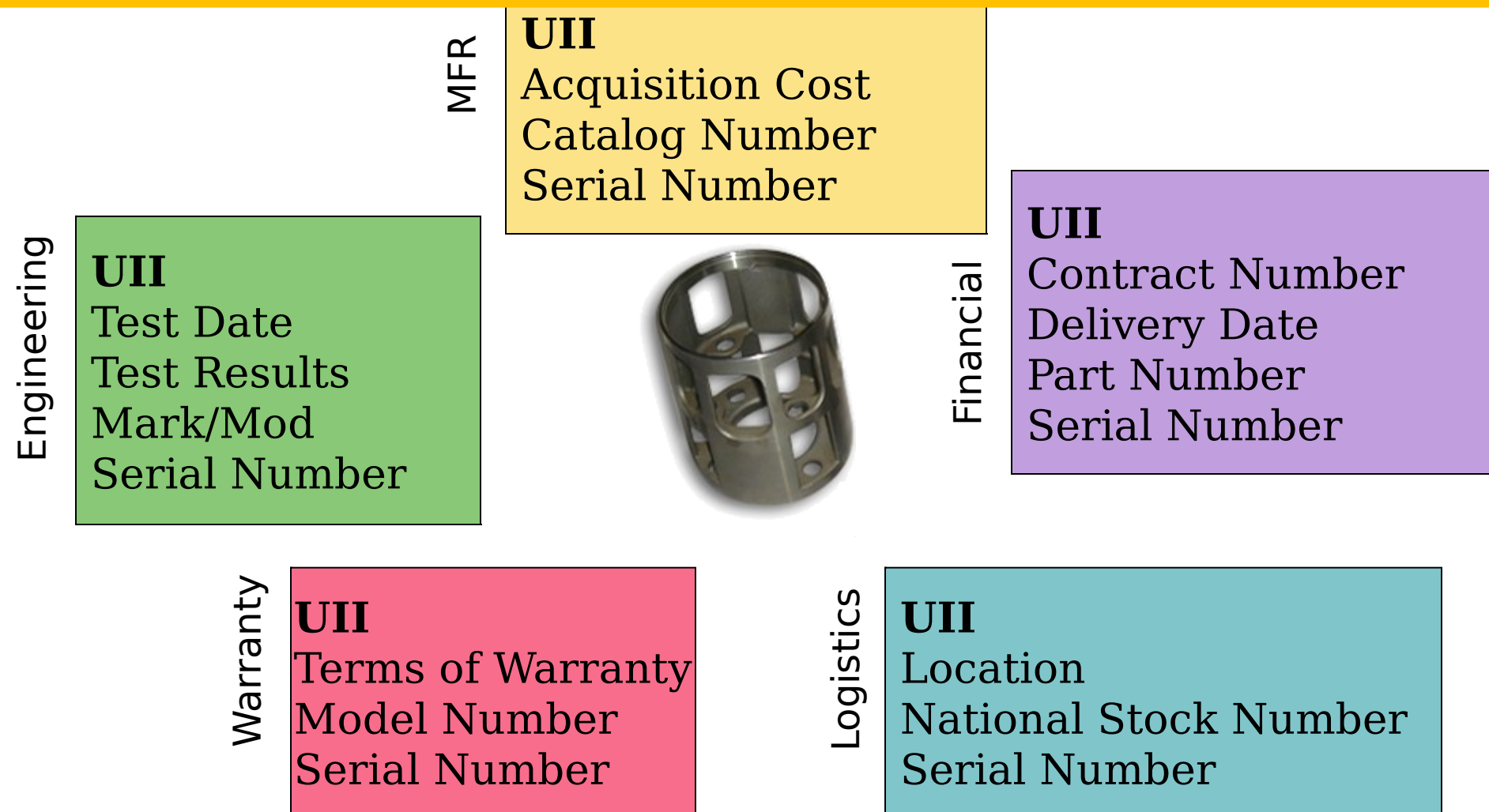
Specialized databases often cannot “talk” to one

# System-System Communication

One way to solve this problem is to pull all of the databases into one over-arching database



# System-System Communication



**The UII can allow information from different databases to be used together**

# Relationships

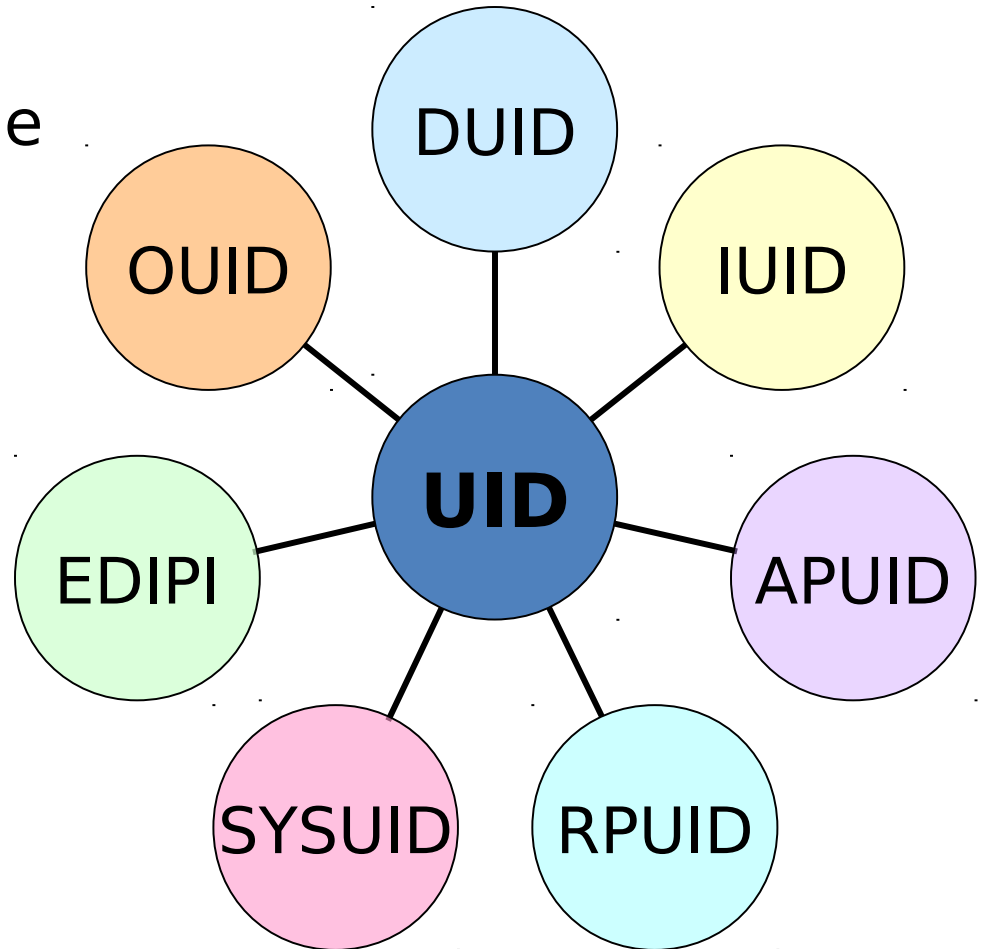
---

## Maintaining Relationships with Barcodes

# A Slice of the World of UID

Turns out there are multiple efforts to create unique identifiers.

- Finances
- Items
- Acquisition Programs
- Locations
- Systems
- People
- Organizations



**Many different types of Unique Identification exist**

# Relationships

- Belonging
  - Item to Item
  - Item to Location
  - Item to Person
  - Location to Location



# Relationships

- Belonging

- Item to Item

Which missile has this  
nuclear warhead?

- Item to Location

What wheels  
were tightened with  
that bad torque wrench?

- Item to Person

- Location to Location

What engine is  
in that helicopter?

# Relationships

- Belonging

- Item to Item

- Item to Location

- Item to Person

- Location to Location

Where is the  
fuse to this  
nuclear warhead?

How many spare  
parts do I have  
forward deployed?

What is in  
my warehouse?

# Relationships

- Belonging

- Item to Item
- Item to Location
- Item to Person
- Location to Location

Who does this  
computer belong to?

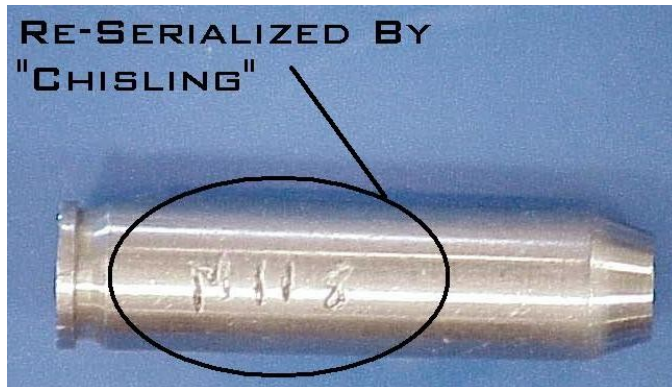
Who verified all  
the small arms  
were secured?

Is this technician  
qualified to work  
on this helicopter?

# When a Marine Needs to Turn in M118... They Turn in M118

**Marines reserialize gages to pass inspection**

**Accountability is lost**  
**Errors enter the information system**



**With IUID Reserialization is No Longer  
a Problem**

# Taking Inventory

## Keeping Track of 4860 Items in a Warehouse



### Without Scanning...

- Full inventory never completed
- Sample data estimates 32.4 hours to complete inventory with 2% error rate

### With IUID Scanning...

- Full inventory completed in 6 man hours by first-time scanners
- Experience with scanning decreases inventory time to less than 1 man hour
- Scanning produced 100%



# Bending IUID To Your System

Without a scanner a data matrix is more or less unreadable



When you use a scanner,  
the scanner “looks at” the  
symbol  
and then figures out what it  
is going to “tell” you

It could tell you: `[]>[RS]06[GS]17VC1234[GS]IPAPN[GS]50001[RS]`  
`[EOT]`

(which is what is encoded in this mark)  
Or it could tell you: `DC1234APN0001`  
(which is the ULL encoded in this mark)

Or it could tell you: `NAVAL SURFACE WARFARE CENTER`  
`[enter] 1999 Fourth Street [enter] Norco, CA 92860 [tab] [tab]`  
`[tab] 6/28/2012 [tab] [tab] [tab] [tab] [tab] [tab] [tab] [tab] [tab]`  
`E94913 Widget M/M: APN S/N 0001 [tab] [tab] [tab] [tab] $2,992`

# Bending IUID To Your System

Which may help you to fill in a DD1149 if you were shipping that particular item somewhere.

Microsoft Excel - DD1149.xls

File Edit View Insert Format Tools Data Window XML Toolbox Help Adobe PDF Type a question for help

K24

REQUISITION AND INVOICE/SHIPPING DOCUMENT															Form Approved OMB No. 0704-0246 EXPIRES APR 30, 1989														
Public reporting burden for this collection of information is estimated to average 15 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operation and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0246), Washington, D.C. 20503.																													
1. FROM (Include Zip Code)										SHEET NO 1		NO OF SHEETS 1		5. REQUISITION DATE		6. REQUISITION NUMBER													
2. TO* (Include Zip Code)										7. DATE MATERIAL REQUIRED				8. PRIORITY															
3. SHIP TO: MARK FOR										9. AUTHORITY OR PURPOSE				10. SIGNATURE			11a. VOUCHER NUMBER & DATE (YYMMDD)												
4. APPROPRIATIONS SYMBOL AND SUBHEAD										OBJECT CLASS		EXPENDITURE ACCOUNT (Fund)		CHARGEABLE ACTIVITY		BUREAU CONTROL ACTIVITY NO.		BUREAU CONTROL NO.		AMOUNT									
ITEM NO										FEDERAL STOCK NUMBER, DESCRIPTION, AND CODING OF MATERIAL AND/OR SERVICE				UNIT OF ISSUE (c)		QUANTITY REQUESTED (d)		SUPPLY ACTION (e)		TYPE CONTAINER (f)		CONTAINER NOS (g)		UNIT PRICE (h)		TOTAL COST (i)			
16. TRANSPORTATION VIA MATS OR MATS CHARGEABLE TO										ISSUED BY		TOTAL CONTAINER		TYPE CONTAINER		DESCRIPTION		TOTAL WEIGHT		TOTAL CUBE		19. CONTAINERS RECEIVED EXCEPT AS NOTED		DATE (YYMMDD)		BY		SHEET TOTAL	
CHECKED BY																						QUANTITIES RECEIVED EXCEPT AS NOTED		DATE (YYMMDD)		BY		GRAND TOTAL	
PACKED BY																						POSTED		DATE (YYMMDD)		BY		20. RECEIVER'S VOUCHER NO	
TOTAL																													

DD Form 1149, JUN 89

1149 BLANK

Ready

NUM

# Bending IUID To Your System

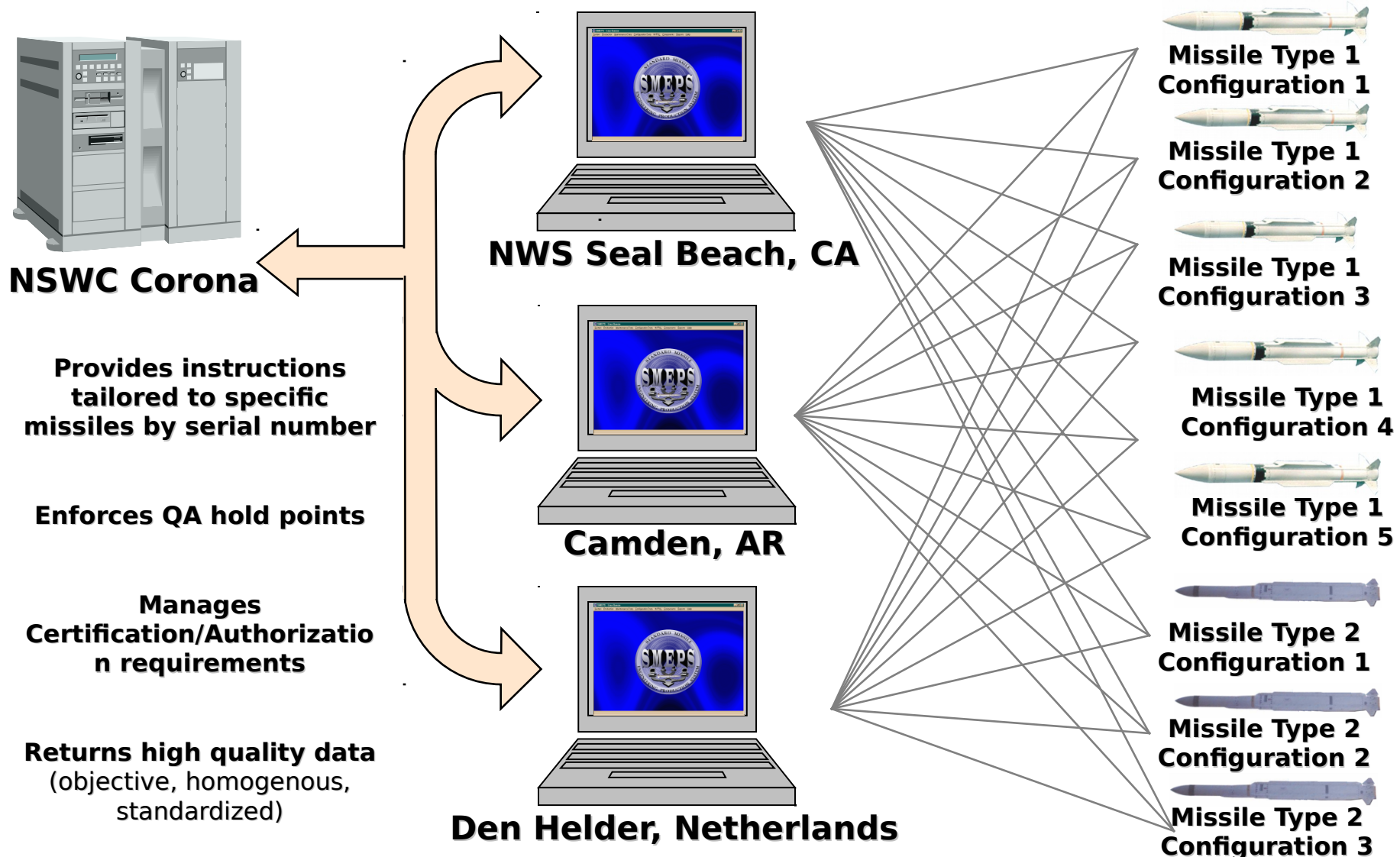
You may be able to tailor the output to fill in web-based input screens with required data.

The screenshot displays the SAP GUI (Web/HTML) interface within a Microsoft Internet Explorer browser window. The browser's address bar shows the URL <https://ep.erp.navy.mil/irj/portal>. The page header includes a welcome message for "Craig A Macdougall" and the "NAVY ERP" logo. A navigation bar contains links for Home, Access Enforcer, Employee Self-Service, Business Warehouse, Training, and Manager Self-Service. The main content area is titled "SAP GUI (Web/HTML)" and displays the "Project Budget Hierarchy Report".

The report interface includes a menu bar with options: Menu, Back, Save as Variant..., Cancel, Exit, System, Execute, and Get Variant... Below this, the "Project Systems" section contains input fields for Project Definition, WBS Element, Network, and Operation/Activity, each with a selection icon. There are also checkboxes for "Complete Hierarchy" and "Include ECMF". The "Funds Management" section includes an "FM Key" field and input fields for "FM Area" (containing the value "1000"), "Fund", and "Funds Center", each with a selection icon. The bottom right corner of the report area shows "RP3" and "nerp612". The browser's status bar at the bottom indicates "Done", "Trusted sites", and "100%" zoom.



# Serialized Item Management



**MANAGING MULTIPLE CONFIGURATIONS AT MULTIPLE SITES**

# IUID Resources

OSD UID Policy Office Website [www.uniqueid.org](http://www.uniqueid.org)

Trusted site for policy, updates, FAQs, and IUID newsletter

DoN IUID Website

[https://acquisition.navy.mil/rda/home/acquisition\\_one\\_source/item\\_unique\\_identification\\_iuid](https://acquisition.navy.mil/rda/home/acquisition_one_source/item_unique_identification_iuid)

MIL-STD 130 (current version is N as of Mar 2012)

Marking standards and requirements

DoD Guide to Uniquely Identifying Items (currently v2.0 as of Mar 2012)

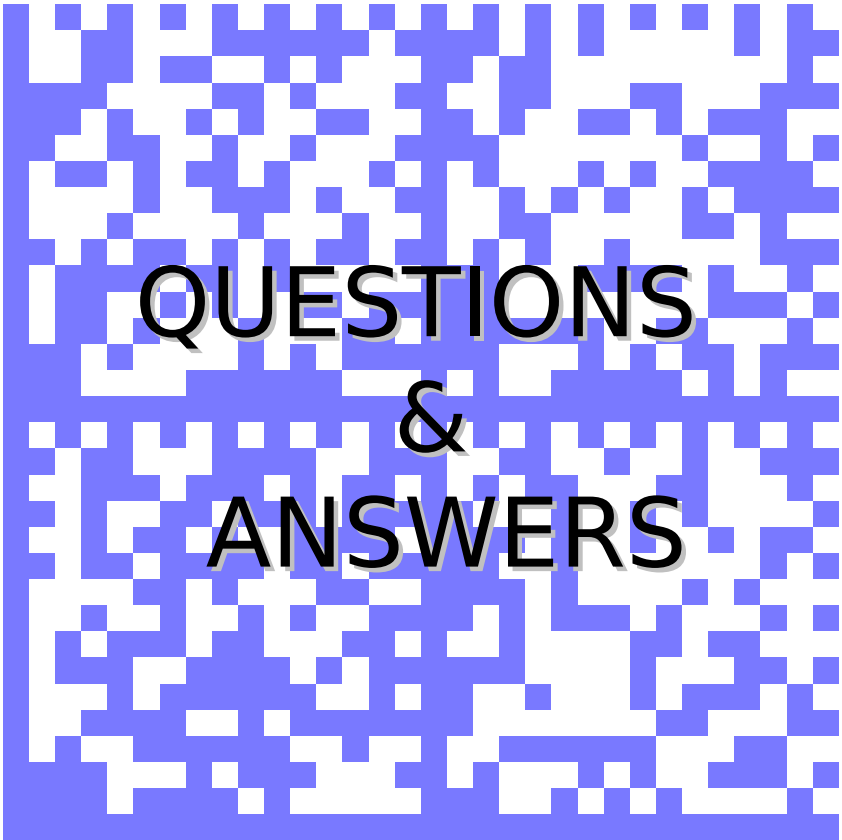
Business rules, additional guidance for legacy items

IUID Toolkit [www.iuidtoolkit.com](http://www.iuidtoolkit.com)

Role based roadmaps for IUID implementation

Defense Acquisition University (DAU) [www.dau.mil](http://www.dau.mil)

Continuous Learning Courses (CLM200, CLE 040) to increase IUID



# QUESTIONS & ANSWERS